

VERSION SHOWING AMENDMENTS TO THE CLAIMS

This listing replaces all prior listings of the claims.

IN THE CLAIMS

Amend the claims as follows:

1 (Currently amended). A memory unit having a storage function, the unit being composed substantially of organic material[[,]] and comprising:

an electrolyte; and

an organo-resistive material embedded in the electrolyte wherein the storage function of the unit results from the organo-resistive material being embedded in the electrolyte.

2 (Currently amended). The memory unit as defined in claim 1, further including a conductive material wherein said organo-resistive material is separated from the conductive material by the electrolyte so that the flow of ionic current through the electrolyte due to application of a voltage to the conductive material causes a readable change in at least one of the conductance or ~~and/or~~ color of the organo-resistive material.

3 (Previously presented). The memory unit as defined in claim 1 or claim 2 wherein the organo-resistive material is disposed in structured form on a substrate.

4 (Currently amended). The memory unit as defined in claim 1 ~~or~~ 2, wherein said organo-resistive material is based on conjugated chains.

5 (Currently amended). A memory unit as defined in claim 1 ~~or~~ 2 wherein the electrolyte is at least one of water-based or and/or solid.

6 (Currently amended). A memory unit as defined in claim 1 ~~or~~ 2 wherein one of the organo-resistive material or and/or a mixture of said organo-resistive and electrolyte materials comprise a material that is ~~is/are~~ soluble ~~and can be processed~~ for processing in a solution.

7 (Currently amended). A method of making an organo-resistive circuit by ohmically coupling a first circuit to the ~~of using~~ a memory unit as defined in any one of claims 1, 2, 4, 5 or 6 ~~claim 1 or 2; wherein a circuit arrangement is provided~~

ohmically coupling the first circuit between and to a ground potential and a supply voltage; and

ohmically coupling the first circuit to ~~comprises~~ at least one resistor, to an organo-resistive conductive element [[,]] embedded in ~~an~~ the electrolyte, and to a control electrode.

8 (Currently amended). [[A]] The method as defined in claim 7, wherein the memory

unit has a given storage density value, the method further including the step of providing wherein the circuit arrangement includes the memory unit in a matrix arrangement for providing the memory unit achieving a higher further storage density value higher than the given value.

9 (Previously presented). The memory unit as defined in claim 3 wherein said organo-resistive material is based on conjugated chains.

10 (Currently amended). [[A]] The memory unit as defined in claim 3 wherein the electrolyte is at least one of water-based or and/or a solid.

11 (Currently amended). [[A]] The memory unit as defined in claim 4 wherein the electrolyte is at least one of water-based or and/or solid.

12 (Currently amended). [[A]] The memory unit as defined in claim 3 wherein the organo-resistive material or and/or a mixture of said organo and electrolyte materials comprise a material that is is/are soluble for processing and can be processed in solution.

13 (Currently amended). A memory unit as defined in claim 4 wherein the organo-

resistive material or and/or a mixture of said organo and electrolyte materials comprise
a material that is is/are soluble for processing and can be processed in solution.

14 (Currently amended). A memory unit as defined in claim 5 wherein the organo-
resistive material or and/or a mixture of said organo and electrolyte materials comprise
a material that is is/are soluble for processing and can be processed in solution.

Claims 15-22, cancelled.

Add the following claims:

23 (New) A memory unit having a storage function, the memory unit being composed
substantially of organic material and comprising:

an electronic organic component comprising organic material;

an electrolyte;

an organo-resistive material ohmically coupled to the electrolyte wherein the
storage function of the unit results from the organo-resistive material being coupled to
the electrolyte; and

the organo resistive material coupled to the electrolyte being substantially the
same material as the organic material of the electronic component.

24(New). The memory unit of claim 23 wherein the organo-resistive material is

embedded in the electrolyte.

25 (New) A memory unit having a storage function, the unit being composed substantially of organic material and comprising:

an electrolyte;

an organo-resistive material ohmically coupled to the electrolyte wherein the storage function of the unit results from the organo-resistive material being coupled to the electrolyte; and

an electrical conductor, said organo-resistive material being separated from the conductor by the electrolyte wherein a voltage applied to the conductor causes a readable change in the color of the organo-resistive material in response to the flow of ionic current through the electrolyte upon said application of the voltage.

26 (New). The memory unit of claim 25 wherein the organo-resistive material is embedded in the electrolyte.